

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
8 January 2004 (08.01.2004)

PCT

(10) International Publication Number  
WO 2004/004130 A3

(51) International Patent Classification<sup>7</sup>: H03M 1/10

Systems, Building 20E, Broad Oak Business Park, Hilsea, Portsmouth, Hampshire PO3 4LY (GB).

(21) International Application Number:  
PCT/GB2003/002681

(74) Agent: GROUP IP DEPARTMENT; Bae Systems plc, Lancaster House, P.O. Box 87, Farnborough Aerospace Centre, Farnborough, Hampshire GU14 6YU (GB).

(22) International Filing Date: 24 June 2003 (24.06.2003)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0214742.9 26 June 2002 (26.06.2002) GB

(71) Applicant (*for all designated States except US*): BAE SYSTEMS PLC [GB/GB]; 6 Carlton Gardens, London SW1Y 5AD (GB).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

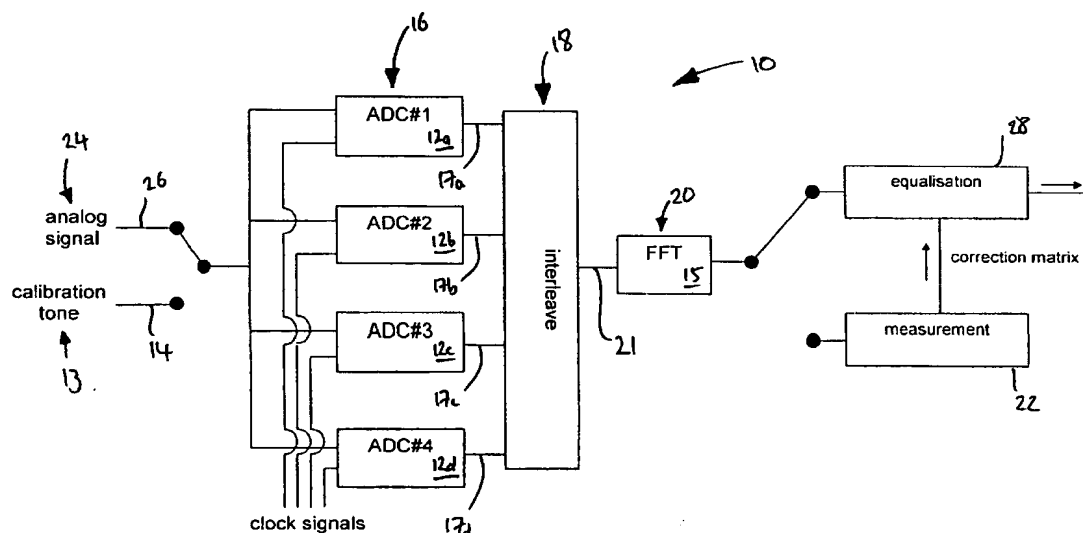
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): WOOD, John, Michael [GB/GB]; BAE Systems ATC, West Hanningfield Road, Great Baddow, Chelmsford, Essex CM2 8HN (GB). COOTE, Nigel, Charles, Trueman [GB/GB]; BAE

Published:  
— with international search report

[Continued on next page]

(54) Title: IMPROVEMENTS RELATING TO TIME-INTERLEAVED SAMPLERS



(57) Abstract: This invention relates to a method of calibrating a time-interleaved analogue-to-digital sampler (10) and to a method of performing analogue-to-digital conversion with a sampler (10) so calibrated. The invention provides a method of calibrating a sampler (10) comprising N time-interleaved ADCs (12a-d), the method comprising the steps of: (a) injecting in turn N calibration signals (13) into the sampler such that each calibration signal (13) occupies one of N related frequencies; (b) determining the input signal for each one of the N calibration frequencies (13); (c) measuring in the frequency domain the output at each of the N related frequencies for each one of the N calibration frequencies; and (d) determining the relationship that relates the input signal to the output at each of the N related frequencies for each one of the N calibration frequencies.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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**(88) Date of publication of the international search report:**  
29 April 2004

## INTERNATIONAL SEARCH REPORT

PCT/GB 03/02681

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H03M1/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 339 390 B1 (VELAZQUEZ RICHARD J ET AL) 15 January 2002 (2002-01-15)  abstract; figures 9-12 column 17, line 40 - column 19, line 21	1-3,5, 7-11,13, 14
A	US 6 081 215 A (KASSIK RONALD WAYNE ET AL) 27 June 2000 (2000-06-27)	
A	JENQ Y-C: "DIGITAL SPECTRA OF NONUNIFORMLY SAMPLED SIGNALS: A ROBUST SAMPLING TIME OFFSET ESTIMATION ALGORITHM FOR ULTRA HIGH-SPEED WAVEFORM DIGITIZERS USING INTERLEAVING" IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, IEEE INC. NEW YORK, US, vol. 39, no. 1, February 1990 (1990-02), pages 71-75, XP002952453 ISSN: 0018-9456	

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

25 February 2004

Date of mailing of the international search report

10/03/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Oliveira, J.

# INTERNATIONAL SEARCH REPORT

PCT/GB 03/02681

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			US	6473013 B1	29-10-2002
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US 6081215	A	27-06-2000	NONE		
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